

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 1. (Previously presented): An electronic authentication method comprising:
2 in a first information processing apparatus, receiving a request for contents from a
3 second information processing apparatus;
4 in response to said request, generating an identifier encryption key and an access
5 number that is are associated with said requested contents in a first information processing
6 apparatus;
7 producing enhanced content comprising said requested contents, said encryption
8 key, and said access number;
9 ~~combining said contents and said identifier to produce enhanced content;~~
10 transmitting said enhanced content to a said second information processing
11 apparatus;
12 presenting said enhanced content to a user at said second information processing
13 apparatus, ~~said identifier being combined with said contents in a manner that it is visually~~
14 ~~imperceptible to said user;~~
15 in said second information processing apparatus, accessing said encryption key
16 and said access number from said enhanced content;
17 receiving user data in said second information processing apparatus and in
18 response thereto producing input data from said user data, ~~including obtaining said identifier~~
19 ~~from said enhanced contents, wherein at least some of said input data is encrypted with said~~
20 encryption key, said produced based on said identifier; and
21 transmitting said input data from said second information apparatus to said first
22 information apparatus as received input data[.],
23 wherein said first information processing apparatus can authenticate legitimacy of
24 said received input data based on said access number.

2-3. (Canceled)

4. (Currently amended): An electronic authentication method according to claim 31, wherein: said embedded encryption key is a public key; said received input data is decrypted using a private key associated with said public key; and said public key and said private key are generated in said first information processing apparatus.

5. (Currently amended): An information processing method comprising:
generating an encryption key and an access number that are associated with identifier for contents;
creating an access information record corresponding to said encryption key and said access number;
~~storing said identifier as a stored identifier;~~
~~generating a second identifier;~~
incorporating said ~~identifier~~ encryption key and said access number into ~~second identifier with~~ said contents to produce enhanced contents ~~such that when said enhanced contents is displayed to a user, said identifier and said second identifier are visually imperceptible;~~
transmitting said enhanced contents to an external apparatus;
receiving received data from said external apparatus, said received data including a user-provided access number, at least a portion of said received data being encrypted with said encryption key;
decrypting said received data; and
deleting said access information record based on whether said received data could be decrypted and based on a comparison with said access number and said user-provided access number.
~~acquiring an acquired identifier for said contents; and~~
~~carrying out processing based on said received data and invalidating said stored identifier if said acquired identifier matches said stored identifier.~~

6-7. (Canceled)

1 8. (Previously presented): An electronic authentication system comprising a
2 first information processing apparatus and a second information processing apparatus wherein:
3 said first information processing apparatus comprises:
4 a means for generating an identifier for encryption key and an access
5 number associated with first contents;
6 a storage means for storing a record that corresponds to said encryption
7 key and said access number ~~at least a first portion of said identifier as a stored identifier~~;
8 and
9 a means for transmitting enhanced contents ~~and said identifier~~ to said
10 second information processing apparatus, ~~including embedding means for embedding~~
11 ~~said identifier in said contents to produce said enhanced contents~~ comprising said first
12 contents, said encryption key, and said access number;
13 said second information processing apparatus comprises:
14 a means for inputting user data, including means for displaying received
15 enhanced contents ~~such that said identifier is not visually perceivable by a user~~; and
16 a means for transmitting said user data and said identifier to said first
17 information processing apparatus as input data, wherein said input data is generated by
18 processing encrypting said user data and includes said access number ~~said first portion of~~
19 ~~said identifier based on a second portion of said identifier~~; and
20 there is further provided in said first information processing apparatus a
21 processing means for authenticating legitimacy of said input data received by said first
22 information processing apparatus and deleting said record based at least on a comparison of said
23 access number and said access number contained in said received input data ~~invalidating said~~
24 ~~stored identifier if said first portion of said identifier contained in said input data matches said~~
25 ~~stored identifier~~.

1 9. (Previously presented): An electronic authentication system according to
2 claim 8, wherein said second information processing apparatus further comprises an acquirement

3 means for acquiring said ~~identifier~~ encryption key and said access number from said received
4 enhanced contents.

1 10. (Previously presented): An electronic authentication system according to
2 claim 8, wherein said second portion of said identifier is an encryption key; and said first
3 information processing apparatus further comprises a reception means for receiving an identifier
4 encrypted by using said encryption key and decrypting said encrypted identifier.

1 11. (Currently amended): An information processing apparatus comprising:
2 a generation means for generating an identifier for contents, said identifier
3 comprising and encryption key and an access number ~~a first part and a second part~~;
4 a storage means for storing at least said first part of said identifier as a stored
5 identifier;
6 a transmission means for transmitting enhanced content comprising said contents
7 and said identifier to an external apparatus ~~as enhanced contents, wherein said enhanced contents~~
8 ~~comprises said identifier embedded in said contents such that upon displaying said enhanced~~
9 ~~contents to a user, said identifier is substantially visually imperceptible~~;
10 a reception means for receiving received data from said external apparatus, said
11 received data comprising a user-provided access number and a portion that has been encrypted
12 using said encryption key;
13 an acquirement means for acquiring ~~an acquired identifier~~ said user-provided
14 access number from said received data; and
15 a processing means for ~~carrying out processing based on said received data and~~
16 ~~invalidating~~ deleting said stored identifier if said ~~acquired identifier~~ user-provided access number
17 matches said ~~stored identifier~~ access number.

12. (Canceled)

1 13. (Currently amended): An information processing apparatus according to
2 claim 11, wherein ~~second portion of said identifier is an encryption key; and~~ there is further

3 provided a reception means for ~~receiving an identifier encrypted by using said encryption key~~
4 ~~and decrypting said~~ portion of said received data that has been encrypted ~~encrypted identifier.~~

1 14. (Currently amended): An information processing apparatus comprising:
2 a contents requesting means for requesting an external information processing
3 apparatus to transmit contents;
4 a reception means for receiving said requested contents, an identifier comprising
5 an encryption key and an access number being embedded in said requested contents;
6 a display means for displaying said requested contents to a user, ~~wherein said~~
7 ~~identifier is substantially visually imperceptible;~~
8 an extraction means for extracting said identifier from said requested contents;
9 an input means for inputting user data from a user; and
10 a transmission means for transmitting, as secured data, said user data and ~~a first~~
11 ~~portion of said identifier~~ said access number to said external information processing apparatus, at
12 least a portion of said secured data being encrypted by said encryption key ~~generated using a~~
13 ~~second portion of said identifier.~~

15. (Canceled)

1 16. (Currently amended): A storage medium for storing information readable
2 by a computer, said medium characterized in that said information includes:
3 a generation function for generating an ~~identifier~~ encryption key and an access
4 number for first contents;
5 a storage function for storing a ~~first stored identifier corresponding to said~~
6 encryption key and said access number ~~portion of said generated identifier~~;
7 a transmission function for transmitting said contents ~~and~~, said identifier, and said
8 access number to an external apparatus as enhanced content, ~~wherein said generated identifier is~~
9 ~~embedded in said contents such that upon displaying said enhanced contents to a user, said~~
10 ~~generated identifier is substantially visually imperceptible~~;
11 a reception function for receiving received data from said external apparatus, said
12 received data comprising a user-provided access number and a portion that is encrypted using
13 said encryption key;
14 an acquirement function for acquiring ~~an identifier for said contents~~ said user-
15 provided access number from said received data; and
16 a processing function for authenticating legitimacy of said received data and
17 invalidating said stored identifier if said ~~acquired identifier~~ user-provided access number matches
18 said ~~stored identifier~~ access number.

17. (Canceled)

1 18. (Currently amended): A storage medium for storing information readable
2 by a computer according to claim 16, wherein ~~said generated identifier includes a second portion~~
3 ~~that is an encryption key~~; and said information further includes a function for ~~receiving said data~~
4 ~~encrypted by using said encryption key and decrypting said received encrypted data~~.

1 19. (Currently amended): A storage medium for storing information readable
2 by a computer, said medium characterized in that said information includes:

3 a contents requesting function for requesting an external information processing
4 apparatus to transmit contents;

5 a reception function for receiving said requested contents, an identifier being
6 embedded in said contents, said identifier comprising an encryption key and an access number;

7 a display function for displaying said requested contents to a user, ~~wherein said~~
8 ~~identifier is substantially visually imperceptible;~~

9 an extraction function for extracting said identifier from said contents;

10 an input function for inputting user data from a user; and

11 a transmission function for transmitting, as input data, said user data and ~~a first~~
12 ~~portion of said identifier~~ said access number to said external information processing apparatus, ~~a~~
13 ~~portion of said input data being encrypted using said encryption key generated using a second~~
14 ~~portion of said identifier.~~

1 20. (Currently amended): A storage medium for storing information readable
2 by a computer according to claim 19, wherein ~~said second portion of said identifier is an~~
3 ~~encryption key~~, said medium characterized in that said information further includes a function
4 for encrypting said user data by using said encryption key.

1 21. (Currently amended): An electronic authentication method comprising:
2 generating an identifier for contents in a first information processing apparatus,
3 said identifier comprising an encryption key and an access number;
4 driving said first information processing apparatus to store at least a first portion
5 of said identifier and the present time as a storage time in a storage unit;
6 transmitting said contents and said identifier to a second information processing
7 apparatus as enhanced content, wherein said identifier is embedded in said contents;
8 presenting said enhanced content to a user at said second information processing
9 apparatus, ~~said identifier being visually imperceptible to said user;~~

10 inputting user data ~~from a user received by said second information processing~~
11 ~~apparatus~~ in said second information processing apparatus;
12 transmitting, as secured data, said user data and said ~~first portion of said~~
13 ~~identifier~~ access number contained in said enhanced content from said second information
14 processing apparatus to said first information processing apparatus, a portion of said secured data
15 encrypted by said encryption key contained in said enhanced content ~~generated based on a second~~
16 ~~portion of said identifier~~; and
17 invalidating said first portion of said identifier stored in said storage unit if said
18 identifier received by said first information processing apparatus is not stored in said storage unit
19 or a time of a predetermined length has lapsed since said storage time stored in said storage unit.

1 22. (Currently amended): An electronic authentication method, comprising:
2 generating an encryption key and an access number that ~~is~~ are associated with
3 contents in a first information processing apparatus;
4 embedding said encryption key and said access number into said contents to
5 produce enhanced content ~~such that when said enhanced content is displayed to a user said~~
6 ~~encryption key is substantially imperceptible~~;
7 transmitting said enhanced content to a second information processing apparatus;
8 displaying said enhanced content in said second information processing
9 apparatus;
10 inputting user data ~~from a user that has been received by said second information~~
11 ~~processing apparatus~~ in said second information processing apparatus;
12 obtaining said access number from said enhanced data;
13 encrypting said user data using said encryption key to produce secured input data,
14 including acquiring said encryption key from said enhanced content;
15 transmitting said secured input data and said access number from said second
16 information processing apparatus to said first information processing apparatus; and
17 validating said secured input data based on said access number and by decrypting
18 said secured input data with a decryption key.

23. (Canceled)

24. (Currently amended): An authentication method in a system in which a first computer making a request for a service is connected to a second computer rendering services via a network, requested contents being transmitted from the second computer to the first computer, data being transmitted from the first computer to the second computer associated with the contents, said method comprising:

generating at the second computer an encryption key relating to the contents;

generating at the second computer an access number for accessing the contents and cataloging the access number in a storage unit;

embedding the encryption key and the access number in the contents to produce enhanced content ~~so that the access number is substantially visually imperceptible when the enhanced content is displayed~~ and transmitting the enhanced content to the first computer;

displaying the contents at the first computer;

generating secured data at the first computer by processing user-provided data with the access number fetched from the enhanced content and transmitting the secured data to the second computer, some of the secured data being encrypted with the encryption key fetched from the enhanced content; and

at the second computer authenticating validity of the secured data based on the access number in the secured data and by decrypting the secured data ~~received at the second computer~~ with a decryption key.

25. (Previously presented): An authentication method according to claim 24, wherein the encryption key is a public key and the decryption key is a private key.

26 - 34. (Canceled)